

Notice of Allowability

Application No.

10/533,359

Applicant(s)

MIYAGI ET AL.

Examiner

RuiMeng Hu

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/18/2007.
2. ☒ The allowed claim(s) is/are 2-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. **Claims 2-8** are allowed.
2. The following is an examiner's statement of reasons for allowance:

Consider **claim 4**, the best prior art of record found during the examination of the present application, **Osburn et al. (US Patent 5428829)** in view of **Kobayashi (US Patent 6243570)** fail to specifically disclose wherein said digital-analog converter comprises a temperature coefficient setting section constituted by including elements having predetermined temperature coefficients, and wherein a device constant of said temperature coefficient setting section as a whole is changed in accordance with ambient temperature.

Osburn et al. clearly disclose a receiver comprising (figures 3a, 3b): a high frequency receiving circuit (figure 3a, block 86) for which a reception frequency in accordance with a tuning voltage is set (RF tuning voltage); a local oscillator (figure 3a, block 104) for generating a local oscillation signal of a frequency in accordance with a control voltage (VCO tuning voltage); a mixing circuit (mixer 94) for mixing a signal outputted from said high frequency receiving circuit (86) with said local oscillation signal (110); a setting data generating unit (microcomputer 98, column 8 lines 52-62) for outputting setting data corresponding to a predetermined reception frequency; and a digital-analog converter (D/A converter 134) for generating said tuning voltage (figure 3b, output signal 112) corresponding to the setting data outputted from said setting data generating unit, the tuning voltage being changed with a predetermined temperature

coefficient in accordance with ambient temperature (column 8 lines 32-49, the tuning voltage may be changed by the D/A converter 134 or the VCO tuning voltage with the temperature coefficient of the VCO tuning voltage).

Osburn et al. clearly disclose said D/A converter 134 as being a programmable gain multiplier, for multiplying the VCO tuning voltage by a gain factor, said VCO tuning voltage has a temperature coefficient.

In the same field of the endeavor, Kobayashi clearly discloses (figure 4, column 3 lines 39-58) a digital to analog converter that converts a digital signal to an analog signal, said digital signal associates with ambient temperature change, and said analog signal output to RF tuning circuit for adjusting/correcting tuning frequency error due to ambient temperature change.

However, Osburn et al. as modified by Kobayashi only disclose the D/A converter as a transitional element producing tuning voltage for RF/VCO tuning. These teachings clearly differ from the claimed invention; therefore, **claims 2-8** of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

to: Commissioner for Patents
P.O. Box 1450

Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu
R.H./rh
June 14, 2007


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600